

## Hot Topics in Communicable Reportable Disease

A Two-year Review (2006-2007)

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**T**here are currently more than 80 diseases that are reportable to the local public health officer. This article highlights investigations of two rare diseases conducted by the Community Epidemiology Branch (CEB) of HHSA and surveillance of a common condition. A complete list of communicable diseases reported in San Diego County from 1996 to 2007 is available at [www.sdepi.org](http://www.sdepi.org).

### VECTOR-BORNE ILLNESSES

During 2006, two patients were admitted to local hospitals after being exposed to vector-borne diseases elsewhere.

**CASE 1:** A 70-year-old female resident of Inyo County, California was admitted to a hospital near her home with altered mental status and pneumonia. She had two free-roaming dogs, and rodents were found in her house. The patient was airlifted to a San Diego hospital. On admission, the patient was responsive only to pain. Her neck

was supple, and no lymphadenopathy was noted on physical exam. There was a questionable infiltrate noted on her chest X-ray. WBC: 28,600 shift to left. Platelet: 36,000. Blood cultures: Gram-negative rods. CEB was contacted, and public health laboratory performed PCR test on the isolate and identified *Yersinia pestis*. Sputum cultures were negative for plague, and the patient was diagnosed with septicemic plague. Public Health follow-up with original hospital staff and air flight crew was undertaken. This case was attributed to Inyo County and will not be listed in San Diego list of reportable diseases.

**CASE 2:** In early November, a 55-year-old female was admitted to a local hospital. She was evaluated for dehydration secondary to vomiting and SOB, fever, and chills. A petechial rash was observed on her thighs, shoulders, and back. Initial blood tests — platelet count: 24,000; hematocrit: 53.5 percent. The woman returned to San Diego a week before hospitalization after concluding

a six-month trip in her camper. She camped throughout the Western states, including Wyoming, Utah, and California. County Vector Control examined the camper, which contained rodents and animal skins. A deer mouse trapped in the camper tested positive for hanta virus, as did a blood sample from the patient. The patient expired.

Obtaining a travel history and area of residence were key in making the diagnosis of both these vector-borne illnesses. Public Health can assist with animal surveillance information, laboratory testing for plague, hanta virus, West Nile virus, and assure that appropriate environmental evaluation and mitigation are taken.

In 2007, San Diego experienced a record high of West Nile virus cases — 225 patient specimens were tested at the San Diego Public Health Lab. Sixteen cases of West Nile disease were diagnosed; 15 people were exposed in San Diego County. Twelve were neuroinvasive, and four were West Nile fever. In a future article, San Diego County

Vector Control will discuss the vector control activities related to West Nile.

#### FOOD-BORNE OUTBREAKS

When you evaluate a patient with gastrointestinal symptoms and obtain a stool culture, the clinical laboratory is encouraged to submit salmonella, shigella, Enterotoxigenic E. coli, and listeria to the public health laboratory. All patients reported with enteric infections are interviewed. Identification of common exposures at restaurants or consumption of common products results in further investigation, correction of problems at facilities, and removal of the implicated product from further sale.

During 2006, 31 food-associated outbreaks were identified in San Diego County. When a case investigation identifies an eating establishment that may be the source of exposure, Environmental Health sanitarians inspect restaurants and review food handling practices as well as the facility structure and source of foods served.


During 2006, investigations conducted in San Diego were instrumental in the recall of unpasteurized milk and colostrum associated with E. coli O157:H7 infection, salmonella associated with Easter chicks and pet lizards, and Vibrio vulnificus infection associated with raw oysters. During 2007, there were 21 food-associated outbreaks and a case of botulism associated with a nationwide recall of a canned chili product.

#### INFLUENZA SURVEILLANCE IN SAN DIEGO COUNTY

San Diego County conducts influenza surveillance year-round. Effective public health intervention is dependent on early detection of circulating strains and monitoring the disease impact on the community. Influenza surveillance includes:

- Influenza virus detection and characterization, laboratory confirmation.
- Reporting of severe pediatric influenza cases.
- Surveillance of emergency department visits and school absence for "flu-like illness."
- Review of death certificates and syndromic surveillance.

Physicians and laboratories are encour-

aged to report positive influenza detections to the public health laboratory at (619) 692-8500 or by fax at (619) 692-8558. Additional information about disease reporting is available by calling (619) 515-6620. San Diego County Community Epidemiology Branch thanks you for prompt disease reporting. It facilitates the investigation and overall reduction in disease. 

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